

ABSTRACT

A lithium ion secondary battery provided with both high weight energy density and good cycle characteristics (capacity retaining ratio during an extended use). A secondary battery comprising a negative electrode having, as a negative electrode active material, carbon and a lithium absorbing material that forms an alloy with lithium, the above active material having a layer structure, a positive electrode capable of absorbing and desorbing lithium ions, and an electrolyte disposed between the positive and negative electrodes, wherein the Li content in the lithium absorbing material layer in the negative electrode is between 31 and 67 % at a discharge depth of 100 %.